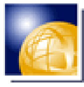 AIS CAPITAL MANAGEMENT, LLC
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January 6, 2010

How Should Gold Be Valued?

With gold recently at an all time high in U.S. dollar terms, as well as in terms of other key currencies, investors are in a quandary trying to place a proper value on gold. Is it overvalued or undervalued? Is it a jewelry and industrial metal; is it money, or just a barbaric anachronism? Unlike stocks and bonds, gold tends to evoke a more emotional response, especially from Americans. Among connoisseurs of fine jewelry, or hard money advocates, it evokes positive emotions. Among many main stream "investment professionals" it is often considered irrelevant, a nuisance when clients ask about it, or it is not held in high regard. Most Americans, other than those who immigrated from war torn or politically unstable areas, have always lived with the luxury of a stable currency unit. Therefore the idea of considering gold as an investment or store of value has held minimal credence.

At AIS our involvement with gold began gradually, primarily because of its negative correlation with equities and bonds. In the early 1990s, when we were developing our first investment strategy, TAAP, a long only tactical asset allocation portfolio, we benefited from modern portfolio theory research, which demonstrated the value of including a negatively correlated asset, such as gold, with equities, bonds, and cash. Moving on from our initial research in developing TAAP, we developed MAAP, a six asset futures portfolio which included gold as one of the initial six asset classes. This product was initially structured to be either long or short in each of the six markets. During most of the 1990s we had minimal opportunities to be long gold in TAAP and were profitably short gold in our MAAP portfolio for extended periods. I point this out so that the reader does not unfairly put us in the "perma gold bug" camp. At AIS we view ourselves as investment pragmatists who attempt to identify significant long-term investment opportunities.

Based on our economic and monetary research it is our conclusion that a significant long-term appreciation opportunity still exists in gold, as well as gold mining companies. In arriving at that conclusion we have made the assumption that gold is gradually regaining a role as an alternative store of value for central banks, sovereign wealth funds, and institutional and private investors. This in no way suggests that the world will return to a gold standard. Rather, gold will increasingly be viewed as a stable haven in a global financial environment that is increasingly less stable, due to an explosion of sovereign debt and a decreasing level of global confidence in the U.S. dollar as a reserve currency.

For many who expect a higher gold price, it is popular to take the 1980 price peak of approximately $850 an ounce and inflation-adjust it, using the Consumer Price Index, CPI. Doing this, analysts arrive at a price of approximately $2300. While this may be a useful exercise, the CPI is a subjective number based on a multitude of assumptions about individual spending habits and technological changes. However, in our view, the bigger drawback is that this approach misses the relevant factors in viewing gold as an alternative store of value within a range of portfolio assets.

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If one begins to view gold as an alternative store of value, then more relevant comparisons would be to look at the growth in financial assets and liabilities, currency reserves or other monetary aggregates. Comparing the growth in financial assets and liabilities, to the growth in the aggregate value of gold, leads to significantly higher potential values. A future peak in the gold price may be many multiples of its current price, but that peak is a moving target. It is more relevant to look at a range of potential outcomes, based on changes that have already occurred and upon future unfolding events. As a comparison, consider the Dow Jones Industrial Average (DJIA) in late 1983 when it temporarily peaked out at a new all time high of 1287, after a 65.7 percent advance from the August 1982 starting point. Prior to that, the DJIA had spent approximately 17 years contained below 1000. Similarly gold remained below its early 1980 peak at approximately 850 for 28 years before it temporarily peaked at 1033 in early 2008. In 1983 no one could predict the ultimate move of the DJIA to above 14000. Those in the early 1980s who were predicting a Dow of 3000 were considered “way out there” at the time. Similarly when one examines the profound changes in the financial system and growth in financial liabilities and assets during the previous several decades, one can arrive at rather unbelievable price targets, if unfolding events drive investors to the stability of gold.

The global economy and the relative position of countries and their economic and financial strength have changed dramatically since 1944, when the Bretton Woods accord was reached, and since the closing of the U.S. gold window in 1971. It is highly doubtful that if a conference was convened today to establish a world monetary system that it would look anything like what currently exists. In many ways the world is in a similar position to the post WW I period, when the world powers were struggling to remain on a gold standard, and the British pound was in its last days as the key world currency. The world currency system was in various states of drift and chaos for two decades until the Bretton Woods accord in 1944.

As WW II came to a close, the U.S. dominated the world economy, had a positive balance of trade, and owned approximately two thirds of the world’s gold supply held by central banks and approximately 46 percent of the world’s known gold supply in both private and public hands. Under Bretton Woods, foreign governments pegged their currencies to the dollar and could exchange any dollars accumulated for gold from the U.S. Treasury. (American citizens, however, were not permitted to own gold until December 1974.) From 1944 until the mid 1960s the U.S. had more gold than foreign obligations. Foreign governments were more than willing to hold dollars rather than exchange them for gold. Beginning in the 1960s, however, foreign governments began to exchange dollars for gold. The U.S. began to lose significant amounts of gold and by March 1968 the price of gold began to move above the officially pegged price of $35 an ounce. By 1971 as the U.S. now had significantly more foreign debt outstanding than gold, President Nixon eliminated the gold conversion of the dollar.

With the closing of the gold window, the world now moved to a dollar standard and floating exchange rates. The 1970s experienced a declining dollar versus other key

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foreign currencies, rising inflation expectations, and by the late 1970s, a hyperbolic move in gold prices to the mid-$800s in early 1980, a 24 fold increase from its former $35 official price. With a lag, the tight money policy of the Federal Reserve, commencing in the late 1970s under Paul Volker, caused inflation expectations to gradually subside. Gold, along with most other commodities, entered a two decade price decline. It eventually bottomed between 1999 and 2001 at approximately $252 an ounce. During the two decade decline in price, foreign central banks continued to be net sellers of gold. The tranquility of the 1980s-1990s convinced many central banks that gold was no longer needed. In fact it was increasingly viewed as an unnecessary asset that paid no income. Gold was often sold and the proceeds reinvested in U.S. Treasury securities to generate income. The U.K. holds the ultimate prize for stupidity, selling half of its gold holdings, at or near the bottom of the market. In fact the secular low in gold prices is sometimes referred to as “Brown’s Bottom”, after Gordon Brown, the architect of the sale, the Chancellor of the Exchequer at the time, and the current Prime Minister.

The initial rise in gold prices in late 2001 coincided with renewed dollar weakness. Dollar weakness largely explained the gold price rise for the first several years. However, by mid-2005 gold began to rise in value against virtually all major currencies. During the financial collapse in late 2008 gold experienced temporary weakness. However it was the first market to turn up in the fall of 2008 and to make a new all time high in 2009. Typically individual stocks, individual country stock markets, or asset classes that exhibit such strength, after a severe bear market, go on to lead all markets in the next advance. Gold clearly represents new price leadership in the current cycle.

While the world thrived on the dollar standard for over three decades, cracks are now appearing in this system. The U.S. has gradually lost its position as the largest economic block, with the European Common Market now larger and China rapidly gaining ground. With this relative loss of economic superiority, its ability to maintain super power military strength is being stretched. This in turn reduces foreign respect for the U.S. financial position and dollar reserve status. This has been compounded by our growing dependence on foreign lending to support our domestic consumption and investment. Without the dollar’s reserve status, the U.S. would long since have been cut off by the world credit markets. Blame is not one sided here, as countries such as China have pursued mercantilist policies, by undervaluing their yuan and pegging it to the dollar in order to boost exports. This has led to a massive buildup of dollar reserves by China. As these reserves have built to excessive levels, they are now expressing concern about the dollar holding its value. In turn China and other countries are attempting to diversify into other currencies, gold, raw materials, and long-term investments. The euro has been a beneficiary of this diversification. However the euro, while backed by the European Central Bank, still represents a confederation of countries, rather than a single sovereign nation. As a result it is unlikely to usurp the dollar’s reserve status. As China grows and if it allows free trading of the yuan, it could in time, possibly in combination with other Asian nations, form a currency block that could take on reserve status. However that is years away as well.

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The related issue driving gold prices higher is the massive increase in sovereign wealth debt. Although the U.S. does not have the largest debt relative to GDP (Japan holds that distinction among developed countries), by virtue of its relative size in the world economy and persistent balance of payments deficit, it represents the largest percentage of foreign held debt. Whereas U.S. debt increases and balance of payments deficits greased the global economic expansion for over three decades, the world is beginning to act as if it is now experiencing too much of a good thing. In 1969 (the first year for which we have this statistic) foreign holdings of U.S. Treasury debt were $12.4 billion against which the Treasury held $13.7 billion of gold at a market price of $40.76 (1969 average price), an 111 percent cover. By 2008 foreign held Treasury debt had grown to $3.1 trillion. In addition the U.S. Treasury has now taken on the effective guarantee of debt issued by FNMA and Freddie Mac of which $1.4 trillion is held by foreigners. Combined debt at yearend 2008 was $4.5 trillion; a 363 fold increase from 1969 or 16.3 percent compound annual increase. Against that debt the U.S. held $227.4 billion of gold at the 2008 average price of $872 per ounce, or a 5 percent cover. Now if there is confidence that the U.S. dollar will not depreciate and that the U.S. can meet future interest and principal payments, the gold cover doesn't matter. With the U.S. now expected to run excessive deficits into the future, the question of solvency is entering the minds of those with holdings at risk. Compounding this problem is the estimated level of contingent debt, not currently on the balance sheet, for future Social Security, and Medicare/Medicaid commitments. Politicians have been unable to deal with the smaller financial issues and Americans have become accustomed to the social benefits. So it is increasingly unlikely that disciplined measures will be instituted to make good on this debt. In 1980 when gold reached an average price of $614 an ounce, gold represented a cover of foreign held debt of 124.7 percent. Since that time the cover ratio has steadily declined to its current low of 5.0 percent. In 2001 when the average gold price was $273, the cover was 6.8 percent. So even though the average gold price more than tripled in the next seven years, foreign held debt has been rising at a faster rate. It is our view that the world will grow increasingly skeptical of the U.S. ability to meet its obligations and this skepticism will be reflected in significantly higher gold prices.

Another comparison to consider is the growth in currency reserves held by governments. Until the mid-1980s gold represented a larger portion of foreign reserves than currencies. However, in the last two decades currency reserves have exploded relative to gold holdings. This occurred as mostly European central banks sold partial gold holdings while currency reserves exploded largely in the Asian countries, especially China and Japan. Today the G-7 countries still hold approximately 35 percent of their total reserves in gold while the G-20 only holds approximately 3.5 percent in reserves. Recently Russia, China, and India, among others, have begun to increase their gold holdings. How this new trend of central bank gold buying eventually plays out remains to be determined. But it could be significant. Could these newly wealthy developing countries move to 5 or 10 percent gold holdings; or might they possibly increase their reserves to the 35 percent level of the G-7? If they do, it will put tremendous upward pressure on gold prices for many years to come. Similar to the rapid growth rate of foreign held U.S. debt, currency reserves have grown at 14.7 percent for the past 39 years or 210 fold.

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As foreign held U.S. debt has compounded at 16.3 percent and world currency reserves have expanded at 14.7 percent, new gold supplies have grown at approximately 2 percent a year (Total above ground gold supplies in 1969 were estimated at 73,952 tons and in 2008 the estimate was 163,000 tons). Simple supply/demand economics would suggest that a relatively scarcer item should rise in value relative to a less scarce item, assuming there is relatively similar demand for the two items in question. Obviously the demand for gold ebbs and flows just as the demand for financial assets does. Investors were indifferent to owning gold for two decades while they clamored for financial assets such as U.S. debt and the U.S. currency. We may now be in the early stages of increasing demand for gold as investors of all types look for a stable store of value as the world moves to solutions to the debt and currency challenges.

In order to restore financial order in the fall of 2008, governments were willing to take unprecedented measures in terms of increased debt levels and quantitative easing by central banks. As the private sector sought to reduce debt leverage, governments took the private sector's place by ramping up debt leverage and guarantees of other's debts. Likewise central banks took unprecedented measures, which reduced the quality of their balance sheets. The Federal Reserve purchased mortgage debt and accepted lower quality collateral in the current period than what was considered its historical mandate. If the current recovery proves to be strong and long lasting, central banks and governments may be able to return to their pre-2008 debt levels. However, if this does not occur by the commencement of the next recession, the world financial system will be confronted with a further explosion of sovereign debt levels that could prove unmanageable. Given the aging populations of the developed world, the social welfare commitments that currently are only contingent liabilities will move to actual debt levels on the government's balance sheet in future years. The history of political policy of the last century does not give one confidence that hard choices will be made. It is far more probable that governments will favor deficit spending and activist central bank policies to meet their obligations.

Because of these uncontrolled trends in government debt growth, the prevailing concept of "risk free" may be called into question. It is often said that governments don't default on their debt. However, various governments have defaulted on their debt and many more have chosen inflating their way out of debt. Should either of those two possibilities become a reality, which would the investor consider as a risk free investment, government Treasury bills, notes, or bonds, which can be manufactured at will, or gold, which has had a long history of only increasing in total quantity at two percent per year? Therefore if the world financial system continues to become more unstable, gold will increasingly be recognized as an alternative store of value. As developing world central banks and sovereign wealth funds continue to accumulate excess reserves, gold will increasingly be viewed as one of several investment alternatives. Success begets success and trends reinforce themselves. The leaders of these organizations are subject to the same human emotions that other investors experience. As the price of gold rises, it will be a self-reinforcing movement, just as the two decade decline probably encouraged governments to sell gold. Ultimately gold's price could rise to meet the prior ratio

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relationships to either U.S. foreign held debt or world currency reserves that existed prior to 1980. Based on the range of ratio relationships (See Charts I and II and Table I) that existed prior to 1980, gold's price could possibly rise well above $10,000 an ounce. Whether the price rises to meet those prior relationship levels, or not, the evidence suggests that gold's price will be moving to much higher prices until a greater level of stability returns to the global financial system.

The bull market in gold prices, like a bull market in stocks, is not a one way street. A long-term trend consists of a series of intermediate advances interspersed with intermediate corrections. As in the past several years gold is likely to experience multiple months of advancing prices, and weeks or months of corrective or sideways price action. It may also experience surprise news events that may have short-term unexpected positive or negative influences on its price. As with government currency interventions, governments may attempt to negatively influence gold prices as they attempt to control inflationary expectations. However, until the underlying factors of excessive debt issuance and increasing levels of currency reserve accumulations subside, gold's long-term price direction should continue higher.

AIS employs a number of different factors to define gold's trend. Among them is the relative price of gold to other markets such as equities. As Chart III demonstrates, gold has been in a rising relative trend versus the S&P 500 since 2001. As this chart illustrates, gold experiences long periods of both relative outperformance and underperformance. As stated earlier, we believe that gold's period of outperformance is still early in a long-term secular advance.

Just as investors in 1983 wondered if they had missed the bull market in stocks, investors who have not participated in the gold bull market are in a similar quandary. As we have tried to demonstrate in this research paper, it is our conclusion that gold is still early in a long-term secular advance. That conclusion is based on the assumption that gold will increasingly be viewed as an alternative store of value by all types of investors faced with the dilemma of investing their flows of funds. This will include central banks in countries with a positive balance of payments, to sovereign wealth funds, as well as institutional and private investors. So long as the supply of gold remains relatively scarce versus a growing array of debt and paper currencies, gold's recognition as a store of value is likely to be enhanced.

AIS Investment Strategies (www.aisgroup.com/products.html)

At AIS we manage portfolios by employing a combination of four investment strategies that have the potential to invest across a wide range of asset classes, from traditional equities and fixed income, to gold bullion, and futures on both commodities and financial assets.

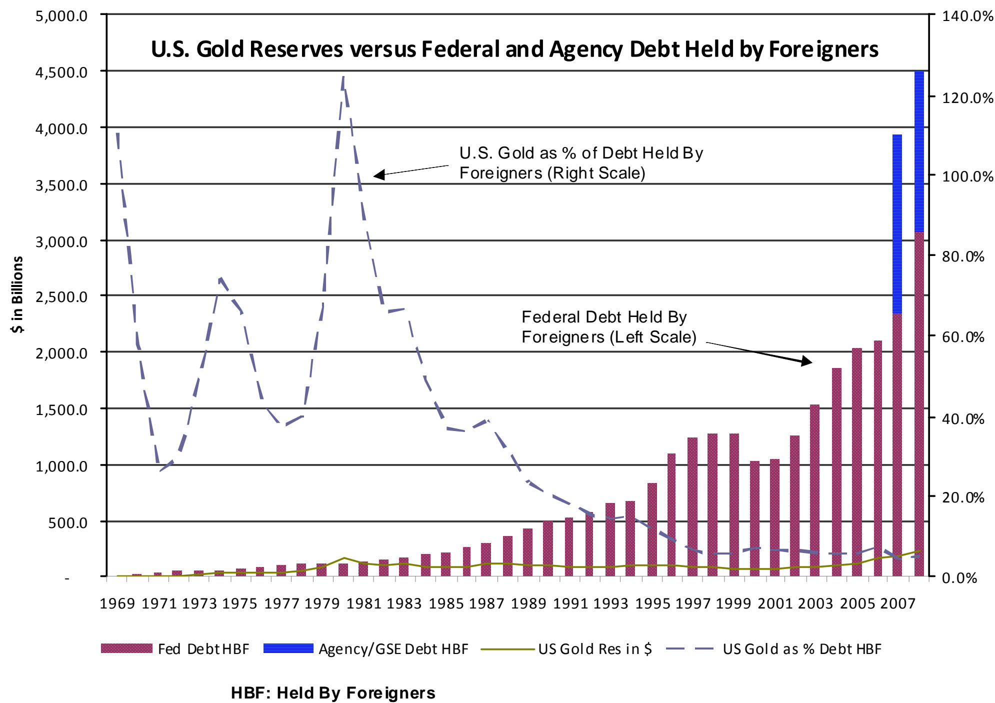
TAAP is a tactical asset allocation program that invests in four asset categories, equities, bonds, gold bullion, and cash equivalents. This portfolio uses no leverage and does not sell short. The ability to invest in gold as well as traditional financial assets has served investors extremely well in this past decade.

Capital Growth is an equity strategy that uses macro investment themes to identify attractive and unattractive sectors to position both long and short.

Gold Strategy invests in both precious metals futures contracts and individual mining companies.

MAAP is a discretionary, diversified, long term futures portfolio that maintains either long or short positions in six different asset groups: equities, fixed income, currency, energy, grains, and metals.

I.



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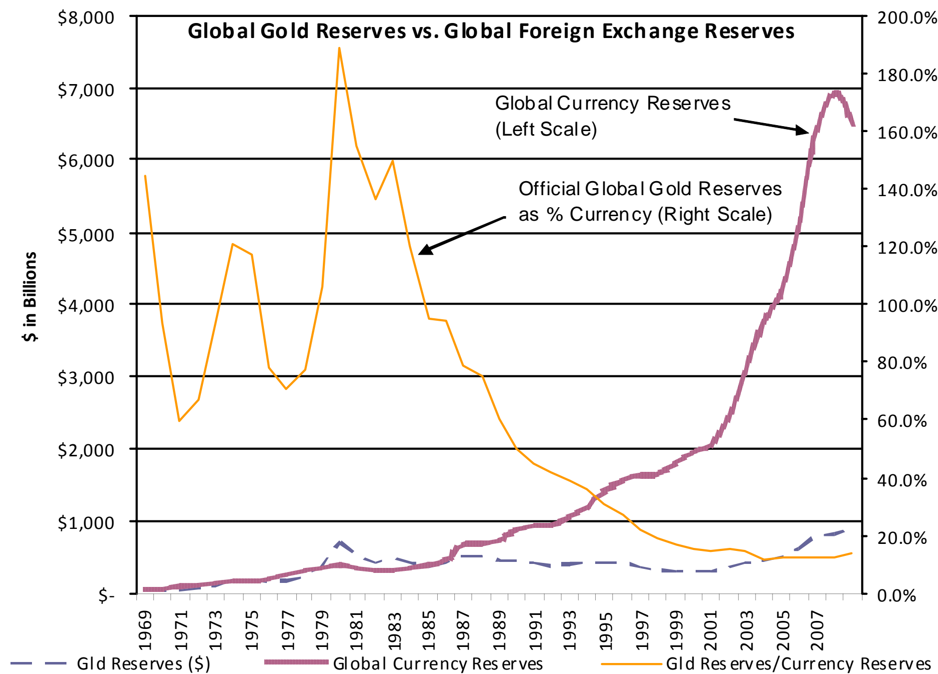

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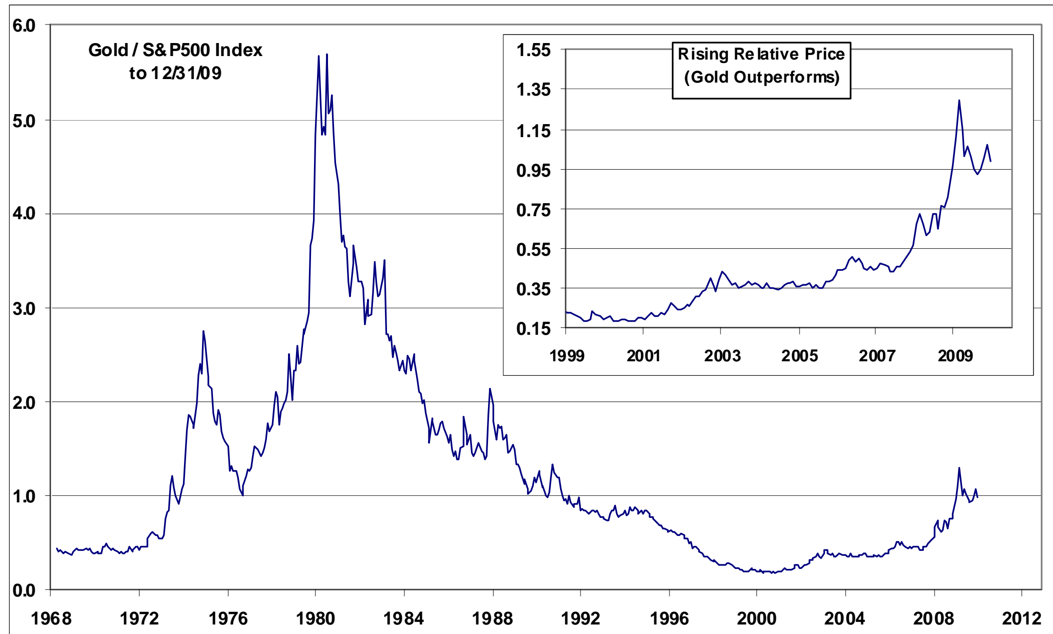

Table I.

	U.S. Debt Held by Foreigners: Federal Debt $ in Billions	U.S. Debt Held by Foreigners: Agency & GSE $ in Billions	World Gold Reserves: In Tons	World Gold Reserves: $ in Millions	US Gold Reserves: In Tons	US Gold Reserves: $ in Millions	US Gold Reserves As % of US Debt Held by Foreigners	Foreign Exchange Reserves $ in Billions	World Gold Reserves As % of World FX Reserves	Gold Price Avg. Ann. per oz.
1969	12.4	2.7	36,286.8	$ 47,329.6	10,538.7	$ 13,745.8	110.9%	32.9	144.1%	$ 40.76
1970	19.7	3.0	36,606.7	42,252.9	9,839.2	11,356.8	57.6%	45.1	93.7%	36.07
1971	46.0	3.1	36,574.7	48,185.0	9,069.7	11,948.8	26.0%	81.0	59.5%	41.17
1972	54.4	3.2	36,722.7	69,332.5	8,583.6	16,205.8	29.8%	103.9	66.7%	59.00
1973	54.7	3.2	36,797.8	115,209.5	8,583.6	26,874.2	49.1%	122.7	93.9%	97.84
1974	58.8	2.8	36,745.4	186,913.6	8,583.6	43,662.4	74.3%	154.5	121.0%	158.96
1975	66.5	2.7	36,674.3	188,840.4	8,544.4	43,996.1	66.2%	160.6	117.6%	160.91
1976	78.1	2.0	36,374.8	145,161.6	8,543.4	34,094.3	43.7%	186.1	78.0%	124.71
1977	109.6	4.7	36,493.9	172,578.2	8,632.7	40,823.7	37.2%	245.5	70.3%	147.78
1978	133.1	5.2	36,267.3	224,439.5	8,597.2	53,203.6	40.0%	289.9	77.4%	193.39
1979	119.0	5.9	35,694.1	348,180.2	8,229.9	80,279.1	67.5%	327.5	106.3%	304.83
1980	129.7	8.5	35,836.3	704,811.1	8,221.2	161,690.6	124.7%	373.2	188.8%	614.61
1981	136.6	10.3	35,830.0	526,569.1	8,214.7	120,725.9	88.4%	339.9	154.9%	459.26
1982	149.5	10.9	35,697.6	428,691.1	8,212.2	98,620.0	66.0%	314.0	136.5%	375.28
1983	166.3	11.2	35,639.9	483,117.4	8,192.3	111,050.9	66.8%	323.3	149.4%	423.61
1984	192.9	12.0	35,606.1	410,752.0	8,173.6	94,290.6	48.9%	342.2	120.0%	360.50
1985	224.8	17.5	35,687.0	362,214.5	8,169.3	82,916.4	36.9%	382.3	94.8%	317.18
1986	263.4	25.0	35,703.0	420,118.6	8,150.3	95,904.9	36.4%	445.1	94.4%	367.72
1987	299.7	28.3	35,612.3	508,577.8	8,160.9	116,545.5	38.9%	647.0	78.6%	446.28
1988	362.2	34.2	35,790.9	500,259.4	8,145.0	113,844.9	31.4%	665.5	75.2%	436.79
1989	426.1	47.2	35,605.2	433,802.4	8,146.9	99,259.2	23.3%	716.9	60.5%	380.74
1990	487.1	49.4	35,582.1	436,458.6	8,146.2	99,923.2	20.5%	870.3	50.2%	383.32
1991	520.9	58.5	35,544.8	411,864.7	8,146.2	94,391.6	18.1%	926.0	44.5%	362.10
1992	576.7	71.4	35,186.6	387,176.5	8,144.1	89,613.8	15.5%	927.5	41.7%	343.86
1993	650.3	103.2	34,878.3	401,798.0	8,142.5	93,801.6	14.4%	1,033.4	38.9%	360.00
1994	667.3	406.8	34,710.1	426,651.0	8,140.5	100,061.7	15.0%	1,186.7	36.0%	384.12
1995	835.2	123.1	34,690.5	426,332.4	8,139.8	100,034.9	12.0%	1,389.8	30.7%	384.05
1996	1,102.1	134.4	34,558.4	428,878.0	8,138.6	101,002.0	9.2%	1,566.3	27.4%	387.82
1997	1,241.6	157.3	33,945.4	359,528.0	8,138.0	86,192.5	6.9%	1,616.3	22.2%	330.98
1998	1,278.7	185.6	33,535.6	315,631.7	8,136.9	76,583.2	6.0%	1,643.8	19.2%	294.12
1999	1,268.7	232.3	33,523.7	298,816.9	8,138.9	72,546.9	5.7%	1,781.9	16.8%	278.55
2000	1,034.2	348.2	33,059.9	291,715.0	8,136.9	71,799.1	7.0%	1,936.3	15.1%	279.10
2001	1,051.2	504.1	32,780.7	291,412.0	8,149.0	72,443.0	6.8%	2,049.6	14.2%	272.67
2002	1,246.8	630.6	32,412.8	361,819.0	8,149.0	90,966.4	6.5%	2,408.1	15.0%	309.66
2003	1,533.0	655.3	31,858.0	426,351.0	8,134.9	108,868.5	6.2%	3,025.1	14.1%	362.91
2004	1,853.4	875.2	31,342.3	438,948.0	8,136.2	113,946.9	5.7%	3,748.4	11.7%	409.17
2005	2,036.0	1,012.9	30,742.3	507,046.0	8,135.1	134,175.7	5.7%	4,174.6	12.1%	444.47
2006	2,105.0	1,262.3	30,378.7	617,277.0	8,133.5	165,267.4	7.5%	5,037.0	12.3%	603.92
2007	2,352.9	1,582.4	29,873.9	800,790.0	8,133.5	218,024.8	4.6%	6,411.2	12.5%	695.39
2008	3,076.3	1,429.2	29,726.6	831,253.0	8,133.5	227,438.8	5.0%	6,909.4	12.0%	871.65
3/31/2009	3,264.7		29,692.5	874,931.0	8,133.5	239,663.8		6,489.4		924.27
6/30/2009	3,382.1							6,801.1		945.67
9/30/2009	3,497.0									996.59
Source:	St. Louis Fed FDHBFIN	Federal Reserve Flow of Funds Accounts	World Gold Council		World Gold Council			IMF		World Gold Council

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